Claims:

1. A tool with a tool body and a wear resistant layer system, said layer system comprising at least one layer of MeX, wherein

- Me comprises titanium and aluminum;

- X is at least one of nitrogen and of carbon

and wherein said layer has a Q_I value

$$Q_I \geq 1$$

and said tool body is of one of the materials

- high speed steel (HSS);

- cemented carbide,

and wherein said tool is not a solid carbide end mill and not a solid carbide ball nose mill

- whereby the value of I(200) is at least 20 times the intensity average noise value, both measured according to MS.

2. The tool of claim 1 being one of a cemented carbide insert, a cemented carbide drill and a cemented carbide gear cutting tool, preferably a cemented carbide insert or a cemented carbide drill.

3. The tool of claim 1 wherein there is valid for said Q_I:

$$Q_I \geq 2,$$

thereby preferably

$$Q_I \geq 5,$$

especially preferred

$$Q_r \geq 10.$$

4. The tool of claim 1, wherein said MeX material is one of titanium aluminum nitride, titanium aluminum carbonitride, titanium aluminum boron nitride, thereby preferably one of titanium aluminum nitride and titanium aluminum carbonitride.

5. The tool of claim 1, wherein Me further comprises at least one further element out of the group consisting of boron, zirconium, hafnium, yttrium, silicon, tungsten, chromium, thereby preferably of at least one of yttrium and silicon and boron.

6. The tool of claim 5, wherein said further element is contained in Me with a content i

$$0.05 \text{ at.\%} \leq i \leq 60 \text{ at.\%},$$

taken Me as 100 at.%.

7. The tool of claim 1, further comprising a further layer of titanium nitride between said at least one layer and said tool body and wherein said further layer has a thickness d, for which there is valid

$$0.05\ \mu m \leq d \leq 5.0\ \mu m.$$

8. The tool of claim 7, wherein said layer system is formed by said at least one layer and said further layer.

9. The tool of claim 1, wherein the stress within said at least one layer, σ, is

$$1 \text{ GPa} \leq \sigma \leq 6 \text{ GPa, thereby preferably}$$

$1 \text{ GPa} \leq \sigma \leq 4 \text{ GPa}$, and even more preferred

$1.5 \text{ GPa} \leq \sigma \leq 2.5 \text{ GPa}$.

10. The tool of claim 1, wherein the content x of titanium in Me is:

$70 \text{ at.\%} \geq x \geq 40 \text{ at.\%}$, preferably

$65 \text{ at.\%} \geq x \geq 55 \text{ at.\%}$.

11. The tool of claim 1, wherein the content y of aluminum in said Me is:

$30 \text{ at.\%} \leq y \leq 60 \text{ at.\%}$, thereby preferably

$35 \text{ at.\%} \leq y \leq 45 \text{ at.\%}$.

12. The tool of claim 10, wherein the content y of aluminum in said Me is:

$30 \text{ at.\%} \leq y \leq 60 \text{ at.\%}$, thereby preferably

$35 \text{ at.\%} \leq y \leq 45 \text{ at.}$

13. A method of producing a tool comprising a tool body and a wear resistant layer system, which comprises at least one hard material layer, comprising the steps of

- reactive PVD depositing said at least one layer in a vacuum chamber;
- selecting predetermined process parameter values for said PVD depositing beside of at least one of the two parameters consisting of partial pressure of a reactive gas in said vacuum

chamber and of bias voltage of the tool body with respect to a predetermined reference potential;

- adjusting at least one of said partial pressure and of said bias voltage for realising said layer with a desired Q_I value and a value of at least one of the I(200) and I(111) to be at least 20 times larger than the average intensity noise value both measured according to MS.

14. The method of claim 13, further comprising the step of reducing said partial pressure for reducing said Q_I value and vice versa.

15. The method of claim 13, comprising the step of increasing said bias voltage for reducing said Q_I value and vice versa.

16. The method of claim 13, further comprising the step of reducing said pressure and of increasing said bias voltage for reducing said Q_I value and vice versa.

17. The method of claim 13, further comprising the step of performing said reactive PVD deposition by reactive cathodic arc evaporation.

18. The method of claim 17, further comprising the step of magnetically controlling said arc evaporation.

19. The method of claim 13, further comprising the step of depositing on said tool body a MeX layer, wherein Me comprises titanium and aluminum and X is at least one of nitrogen and of carbon and is introduced to said PVD depositing by reactive gas.

20. The method of claim 13, wherein said tool body is of one of the materials

- high speed steel (HSS)

- cemented carbide

and wherein said tool is not a solid carbide end mill and not a solid carbide ball nose mill thereby selecting said Q_I value to be

$$Q_I \geq 1$$

by adjusting at least one of said reactive pressure and of said bias voltage for said reactive PVD depositing.

20. The method of claim 19, thereby selecting said Q_I value to be

$$Q_I \geq 2, \text{ preferably to be } Q_I \geq 5.$$

21. The method of claim 20, thereby selecting said Q_I value to be

$$Q_I \geq 10.$$